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Abstract

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A hydroxyethyl starch for use as plasma expander which is obtainable by hydrolytic predegradation of a starch rich in amylopectin, partial hydroxyethylation to a specific substitution degree in the presence of alkali and subsequent hydrolytic degradation to a specific molecular weight, comprises a mean molecular weight of 60,000 - 600,000 and a substitution degree MS of 0.15 - 0.5. The ratio of the substitution of C2 to the substitution of C6 of the anhydroglucose units is 8 - 20 and the substitution degree DS lies in the range from 0.15 to 0.5. A process for the preparation of this hydroxyethyl starch employs 2-chloroethanol as hydroxyethylation agent. The hydroxyethylation is carried out under alkaline conditions at room temperature, the pH value held at a value of about 12 and the temperature held at a value of about 20°C.

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